## What is claimed is:

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- 1. A method for assessing toxicity and toxicology of a substance, comprising: exposing a set of at least two genes to the substance;
- monitoring the response of each gene in the set of genes to the substance; analyzing the variance of the response to the substance for each gene using contrast analysis;
- constructing a summary score for each gene in the set of genes;

  performing a logistic regression analysis upon the summary scores; and

  using the results of the logistic regression analysis to provide a predictive model regarding the toxicity and toxicology of the substance.